

Remarks/Arguments:

Status of the Claims

Claims 1-10 are pending, without amendment. Claims 11-15 have been withdrawn.

Objection to the Specification

The Examiner has stated that the application does not contain a Summary of the disclosure, and that such a Summary is required under C.F.R. 1.72(b). Applicant respectfully notes that C.F.R. 1.72(b) does not mention a Summary, but requires a brief Abstract of the technical disclosure. Applicant contends that the requirements of C.F.R. 1.72(b) have been met by providing such an Abstract in the original application. A Summary of the Invention is clearly optional, as described in C.F.R. 1.73, which states: "Such summary should, when set forth, be commensurate with the invention as claimed . . . (emphasis supplied)." Applicant has chosen not to provide a Summary in the application. Since a Summary is not required, Applicant requests that this objection be withdrawn.

Rejections under 35 U.S.C. §102 in view of U.S. Patent No. 5,827,321 to Roubin

Claims 1, 3-6 and 9-10 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,827,321 to Roubin *et al.*, hereinafter "Roubin." Applicant respectfully traverses this rejection because Roubin fails to teach all the elements of the claims. In particular, claim 1 requires a tubular stent with an expanded configuration including, in part,

the expanded configuration having a transverse dimension at the first end that is larger than a transverse dimension at the second end and having a pattern density adjacent the first end that is substantially equal to a pattern density adjacent the second end (emphasis supplied).

Roubin does not teach a stent having an expanded configuration with the above limitations of claim 1. In FIGS. 11A, 11B and 11C, Roubin shows stents having an expandable state with varying stent diameter. Roubin states

The tapering or transitioning of the stent configuration can be accomplished by pre-shaping, and can be enhanced by variations in (1) the thickness of the stent material, (2) the size of apertures 78, and (3) the gaps 47, 49 (col. 8, lines 33-36).

Roubin does not explain what is meant by “enhanced” tapering or transitioning of the expanded stent configuration. Roubin also mentions that smaller apertures 78 provide increased or closer coverage of the vessel wall, and that larger apertures 78 may prevent obstruction of side branches (col. 7, line 60 through col. 8, line 9). Nowhere does Roubin teach “a pattern density adjacent the first end that is substantially equal to a pattern density adjacent the second end,” as required, in part, by claim 1. As discussed above, Roubin does not teach all elements of claim 1 and thus, Roubin fails to anticipate claim 1.

Claims 3 and 4 depend, directly or indirectly, from claim 1 and are patentable over Roubin for at least the reasons discussed above with respect to claim 1.

Claim 5 depends from claim 1 and includes the further limitation, in part, that “when in the expanded configuration, the first end is flared to a generally oval transverse section . . .” Roubin does not teach a stent having either end flared to a generally oval transverse section. Thus, for this reason, and for at least the reasons discussed above with respect to claim 1, Roubin fails to anticipate claim 5.

Claim 6 depends from claim 5 and includes the further limitation, in part, of “at least one tubular stent element distally abutting the first end of the stent.” Roubin does not teach one stent, or stent element, abutting another stent. Thus, for this reason, and for at least the reasons discussed above with respect to claim 5, Roubin fails to anticipate claim 6.

Claim 9 depends from claim 1 and includes the further limitation, in part, of "each hoop element being axially coupled to an adjacent hoop element through one or more adjoining crowns." Roubin does not teach a stent having one crown adjoining another crown. Instead, Roubin teaches crowns being linked together by connecting members 49. Thus, for this reason, and for at least the reasons discussed above with respect to claim 1, Roubin fails to anticipate claim 9.

Claim 10 depends from claim 9 and is patentable over Roubin for at least the reasons discussed above with respect to claim 9. For the foregoing reasons, Applicant requests that the above rejections under 35 U.S.C. §102 be withdrawn.

Rejections under 35 U.S.C. §102 in view of U.S. Patent No. 5,957,949 to Leonhardt et al.

Claims 1-2 and 7-8 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,957,949 to Leonhardt *et al.*, hereinafter "Leonhardt." Applicant respectfully traverses this rejection because Leonhardt fails to teach all the elements of the claims. The Examiner states that Leonhardt discloses

"... the compressed configuration has a pattern density adjacent the first end (20 as best seen in fig. 4) that is greater than a pattern density adjacent the second end (46 as seen in fig. 4).

Applicant respectfully disagrees with the above characterization of Leonhardt. In column 3, lines 35-39, Leonhardt states that "the top and bottom portions are substantially symmetrical to each other having a zig-zag 40 or wavy form. The preferred embodiment has six (6) zig-zags..." In FIG. 4, valve stent 20 is shown with equal numbers of distensible fingers 46 formed by zig-zag fingers 40 of stent 26. Thus, Leonhardt fails to teach at least the "compressed configuration having a generally constant diameter and a pattern density adjacent the first end that is greater than a pattern density adjacent the second end," as required, in part, by claim 1.

Claim 2 depends from claim 1 and is patentable over Leonhardt for at least the reasons discussed above with respect to claim 1.

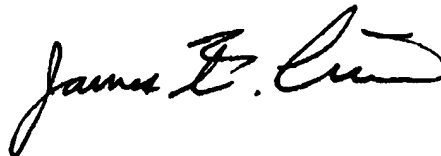
Claims 7-8 depend, directly or indirectly, from claim 5, which depends from claim 1. Thus, claims 7-8 are patentable over Leonhardt for at least the reasons discussed above with respect to claim 1. Furthermore, the conical distal end 156 of Leonhardt's balloon 154 is not inverted, as required, in part by claim 8. For the foregoing reasons, Applicant requests that the above rejections under 35 U.S.C. §102 be withdrawn.

Conclusion:

Applicant believes that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner feels that a telephone conference would, in any way, expedite the prosecution of the application, please do not hesitate to call the undersigned at telephone (978) 739-3075 (EDT).

Dated this 17th day of November, 2004.

Respectfully submitted,



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